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positioned on an engaging face of said first component and defining a pitch being not less than the locking lug axial height engagement multiplied by the number of locking lugs present on said first component; and

b. a second child resistant container component having at least one locking lug defining an axial height and being adapted to matingly engage said first component locking lug, and having a thread adapted to matingly engage said first component thread such that the axial displacement of said second component thread plus said first component thread when combined with the pitch is greater than the first component locking lug height, said locking lug and said thread being positioned on an engaging face of said second component.

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REMARKS

Reconsideration of the above referenced application is respectfully requested. After entry of the enclosed amendment, claims 1-23 remain in the application. Claims 1, 18 and 23 have been amended to more particularly claim the present invention. Claim 9 has been amended to correct a typographical error in the originally filed claims.

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35 U.S.C. §102 Rejection of Claims 1-3, 8, 12, 15, 18 and 21-23

The Examiner has rejected Claims 1-3, 8, 12, 15, 18 and 21-23 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 3,233,769 (Jessop). Applicant respectfully traverses the Examiner on this ground of rejection.

Applicants' invention as claimed in amended claim 1 is a thread for use with a child resistant container component having an engaging face and at least one locking lug with an axial height and defining an axial height engagement. The thread is comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness. The first and second faces have differing first and second thicknesses. The thread is affixed to the engaging face in a spiral such that the thread defines a thread pitch being not less than the locking lug axial height engagement multiplied by the number of locking lugs present on the container component.

Applicant's invention as claimed in amended claim 18 is a child resistant closure and bottle combination having a first child resistant container component with at least one locking lug having an axial height and defining an axial height engagement and a second child resistant container component. The first container component also comprises a thread having a first

segment defining a first face having a first thickness and a second segment defining a second face having a second thickness. The first and second faces have differing first and second thicknesses. The locking lug and the thread are positioned on an engaging face of the first component such that the thread defines a thread pitch being not less than the locking lug axial height engagement multiplied by the number of locking lugs present on the container component. The second component also has at least one locking lug defining an axial height and being adapted to matingly engage the first component locking lug. The second component also has a thread adapted to matingly engage the first component thread such that the axial displacement of the second component thread plus the first component thread when combined with the pitch is greater than the first component locking lug height.

Applicant's invention as claimed in amended claim 23 is a child resistant closure and bottle combination having a first child resistant container component with at least one locking lug having an axial height and defining an axial height engagement and a second child resistant container component. The first container component also comprises a thread having a first segment defining a first face having a first thickness and a second segment contiguous with the first segment, defining a second face having a second thickness. The first and second faces

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have differing first and second thicknesses. The locking lug and the thread are positioned on an engaging face of the first component such that the thread defines a thread pitch being not less than the locking lug axial height engagement multiplied by the number of locking lugs present on the container component. The second component also has at least one locking lug defining an axial height and being adapted to matingly engage the first component locking lug. The second component also has a thread adapted to matingly engage the first component thread such that the axial displacement of the second component thread plus the first component thread when combined with the pitch is greater than the first component locking lug height.

By contrast, Jessop teaches a screw-capped container having a downwardly extending projection member 17 on the cap that engages a cooperating member 19 on the container neck. This provides a safety feature for preventing accidental removal of the cap from the container. Although Jessop does teach a thread for rotationally connecting the cap and container together, Jessop does not teach a thread comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness that differs from the first thickness.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently

described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Jessop neither expressly nor inherently sets forth each element of amended claims 1, 18 or 23. Specifically, Jessop does not teach the claimed element found in claims 1, 18 and 23 of a thread comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness that differs from the first thickness. Since Jessop does not teach either expressly or inherently every element of amended claims 1, 18 and 23, Applicants respectfully request withdrawal of the rejections of claims 1, 18 and 23 on the basis of the Jessop reference.

With regard to the Examiner's rejections of claims 2-3, 8, 12, 15 and 21-22, Applicants contend that the prior art of Jessop does not teach all the elements of these claims, and therefore does not anticipate these claims either. Since claims 2-3, 8, 12, 15 and 21-22 depend either directly or indirectly from claims 1, 18 and 23 and Jessop does not teach, either expressly or inherently, all the elements of claims 1, 18 and 23 for the reasons stated above, Jessop therefore does not teach all the elements of these dependent claims either. Applicants respectfully requests withdrawal of the rejection of claims 2-3, 8, 12, 15 and 21-22 on the basis of the Jessop reference.

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35 USC §102 Rejection of Claims 1-4, 6, 8, 10, 12-15, and 17-23

The Examiner has rejected Claims 1-4, 6, 8, 10, 12-15, and 17-23 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 3,917,097 (Uhlig). Applicant respectfully traverses the Examiner on this ground of rejection.

As previously discussed at greater length, Applicants' invention as claimed in amended claim 1 is a thread for use with a child resistant container component. The thread is comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness. The first and second faces have differing first and second thicknesses.

As previously discussed at greater length, Applicants' invention as claimed in amended claim 18 is a child resistant closure and bottle combination having a first child resistant container component and a second child resistant container component. The first container component comprises a thread having a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness. The first and second faces have differing first and second thicknesses.

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As previously discussed at greater length, Applicants' invention as claimed in amended claim 23 is a child resistant closure and bottle combination having a first child resistant container component and a second child resistant container component. The first container component comprises a thread having a first segment defining a first face having a first thickness and a second segment, contiguous with the first segment, defining a second face having a second thickness. The first and second faces have differing first and second thicknesses.

By contrast, Uhlig teaches a container and closure construction including safety locking arrangements. The neck of the container has an outer surface with a bearing thread 17 affixed to and wound in a spiral around it. In an upper portion of the closure are positioned thread grooves 25 in matching alignment with bearing thread 17 so that the closure can be telescoped down onto the neck, with the thread on the neck engaging the thread grooves. See Uhlig, Figs. 2, 9 and 17. The Examiner suggests that the ends of the bearing threads 17 are thinner at the start and finish. The Applicants respectfully disagree with this assertion. Uhlig clearly teaches a contiguous thread of uniform thickness throughout. Although the ends of the thread are rounded rather than squared off to facilitate easier engagement of the thread with the groove, this is not the

equivalent of a thread comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness that differs from the first thickness. Uhlig does not teach this claimed element of the present invention.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Uhlig neither expressly nor inherently sets forth each element of amended claims 1, 18 or 23. Specifically, Uhlig does not teach the claimed element of a thread comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness that differs from the first thickness. Since Uhlig does not teach either expressly or inherently every element of amended claims 1, 18 and 23, Applicants respectfully request withdrawal of the rejections of claims 1, 18 and 23 on the basis of the Uhlig reference.

With regard to the Examiner's rejections of claims 2-4, 6, 8, 10, 12-15, 17 and 19-22, Applicants contend that the prior art of Uhlig does not teach all the elements of these claims, and therefore does not anticipate these claims either. Since claims 2-4, 6, 8, 10, 12-15, 17 and 19-22 depend either directly or

indirectly from claims 1, 18 and 23 and Uhlig does not teach, either expressly or inherently, all the elements of claims 1, 18 and 23 for the reasons stated above, Uhlig therefore does not teach all the elements of these dependent claims either. Applicants respectfully request withdrawal of the rejection of claims 2-4, 6, 8, 10, 12-15, 17 and 19-22 on the basis of the Uhlig reference.

35 U.S.C. §103 Rejection of Claims 5, 7 and 11

The Examiner has rejected Claims 5, 7 and 11 under 35 U.S.C. §103(a) as being unpatentable over Uhlig (U.S. Patent 3,917,097). Applicants respectfully traverse the Examiner on this ground of rejection.

Claims 5, 7 and 11 depend indirectly from amended claim 1 and therefore include all the limitations of amended claim 1. As previously discussed, Applicants' invention as claimed in amended claim 1 is a thread for use with a child resistant container component. The thread is comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness. The first and second faces have differing first and second thicknesses.

As already discussed, Uhlig teaches a container and closure construction including safety locking arrangements. The neck of the container has an outer surface with a bearing thread 17 affixed to and wound in a spiral around it. In an upper portion of the closure are positioned thread grooves 25 in matching alignment with bearing thread 17 so that the closure can be telescoped down onto the neck, with the thread on the neck engaging the thread grooves. Uhlig clearly teaches a contiguous thread of uniform thickness throughout. Although the ends of the thread are rounded rather than squared off to facilitate easier engagement of the thread with the groove, this is not the equivalent of a thread comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness that differs from the first thickness. Uhlig does not teach or even suggest this claimed element of the present invention. In fact, Uhlig teaches away from a thread having first and second segments with each having differing thicknesses. As shown in Figs. 2, 9, 17 and others, the thread groove 25 is engineered to exactly and tightly fit around the bearing thread 17 so that the thread and the groove engage smoothly. This ensures that "[t]he closure is very easily applied to the container neck." See Uhlig at col. 6, lines 29-32 and 40-45. Therefore, not only does Uhlig not teach or suggest a thread having first and second segments with each having differing thicknesses, Uhlig actually teaches away from

this claimed limitation and any further limitations of specifically defined varying diameter between the segments, as is claimed in claims 5, 7 and 11.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Further, prior art references must be considered in their entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Uhlig does not teach or suggest all the claim limitations of the present invention. In particular, Uhlig does not teach a thread for use with a child resistant container component having a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness that differs from the first thickness. Uhlig as a whole actually teaches away from a thread having two sections of varying thickness, in that Uhlig teaches a thread groove of uniform thickness that fits closely with the bearing thread. Therefore, the thread taught by Uhlig must also be uniform in thickness in order for it to function properly with its mated thread groove.

Since Uhlig does not teach or suggest all of the limitations of Applicants' claimed invention, Applicants respectfully request

withdrawal of the rejection of claims 5, 7 and 11 on the basis of the Uhlig reference.

35 U.S.C. §103 Rejection of Claims 9 and 16

The Examiner has rejected Claims 9 and 16 under 35 U.S.C. §103(a) as being unpatentable over Uhlig (U.S. Patent 3,917,097) in view of Virog Jr. et al. (U.S. Patent 4,180,175). Applicant respectfully traverses the Examiner on this ground of rejection.

Claims 9 and 16 depend indirectly from amended claim 1 and therefore include all the limitations of amended claim 1. As previously discussed, Applicants' invention as claimed in amended claim 1 is a thread for use with a child resistant container component. The thread is comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness. The first and second faces have differing first and second thicknesses.

As already discussed, Uhlig teaches a container and closure construction including safety locking arrangements. Uhlig clearly teaches a contiguous thread of uniform thickness throughout. Uhlig does not teach or suggest, either alone or in combination with Virog Jr. et al., a thread comprised of a first segment defining a first face having a first thickness and a

second segment defining a second face having a second thickness that differs from the first thickness. As previously discussed, Uhlig teaches away from a thread having first and second segments with each having differing thicknesses. As shown in Figs. 2, 9, 17 and others, the thread groove 25 is engineered to exactly and tightly fit around the bearing thread 17 so that the thread and the groove engage smoothly. This ensures that "[t]he closure is very easily applied to the container neck." See Uhlig at col. 6, lines 29-32 and 40-45. Therefore, not only does Uhlig not teach or suggest a thread having first and second segments with each having differing thicknesses, Uhlig actually teaches away from this claimed limitation and any further specific limitations of varying diameter between the segments, as is claimed in claims 5, 7 and 11. Uhlig in combination with Virog Jr. et al. also does not teach or suggest the claimed limitation of a thread comprised of a first segment defining a first face having a first thickness and a second segment defining a second face having a second thickness that differs from the first thickness.

Since Uhlig, either alone or in combination with Virog Jr. et al., does not teach or suggest all of the limitations of Applicants' claimed invention, Applicants respectfully request withdrawal of the rejection of claims 9 and 16 on the basis of Uhlig in view of Virog Jr. et al.

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CONCLUSION

Applicants believe that the instant application is now in condition for allowance. Applicants therefore respectfully request that the Examiner allow the pending claims. However, if the Examiner believes there are other unresolved issues in this case, Applicants' attorney of record would appreciate a call at (502) 584-1135 to discuss such remaining issues.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**".

DATE: 1/30/2003

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claim 1 has been amended as follows:

1. (Once Amended) A thread for use with a child resistant container component having an engaging face and at least one locking lug with an axial height and defining an axial height engagement, said thread comprising a first segment and defining a first face having a first thickness, and a second segment which defines a second face having a second thickness, said first thickness varying from said second thickness, said thread affixed to the engaging face of said component in a spiral such that said thread defines a pitch being not less than the locking lug axial height engagement multiplied by the number of locking lugs present on said component.

Claim 9 has been amended as follows:

9. (Once Amended) The thread of Claim 3 wherein the thread configuration is a double helix and a first strand of said double helix starts near said neck opening at a first point and a second strand starts near said neck opening at a point opposite said first strand, and the strands circumscribe said [necks] neck so as to form parallel spirals.

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Claim 18 has been amended as follows:

18. (Once Amended) A child resistant closure and bottle combination comprising:

a. a first child resistant container component having at least one locking lug with an axial height and defining an axial height engagement, and having a thread with a first segment defining a first face having a first thickness and with a second segment defining a second face having a second thickness, said first thickness varying from said second thickness, and said locking lug and said thread being positioned on an engaging face of said first component and defining a pitch being not less than the locking lug axial height engagement multiplied by the number of locking lugs present on said first component; and

b. a second child resistant container component having at least one locking lug defining an axial height and being adapted to matingly engage said first component locking lug, and having a thread adapted to matingly engage said first component thread such that the axial displacement of said second component thread plus said first component thread when combined with the pitch is greater than the first component locking lug height, said locking lug and said thread being positioned on an engaging face of said second component.

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Claim 23 has been amended as follows:

23. (Once Amended) A child resistant closure and bottle combination comprising:

a. a first child resistant container component having at least one locking lug with an axial height and defining an axial height engagement, and having a thread with a first segment defining a first face having a first thickness and with a second segment defining a second face having a second thickness, said first thickness varying from said second thickness, said second segment being contiguous with said first segment, and said locking lug and said thread being positioned on an engaging face of said first component and defining a pitch being not less than the locking lug axial height engagement multiplied by the number of locking lugs present on said first component; and

b. a second child resistant container component having at least one locking lug defining an axial height and being adapted to matingly engage said first component locking lug, and having a thread adapted to matingly engage said first component thread such that the axial displacement of said second component thread plus said first component thread when combined with the pitch is greater than the first component locking lug height, said locking lug and said thread being positioned on an engaging face of said second component.